

DESCRIPTIONS OF SEVEN NEW SPECIES AND ONE NEW
SUBSPECIES OF THE OLETHREUTINAE FROM JAPAN
(LEPIDOPTERA: TORTRICIDAE)

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Notocelia yakushimensis sp. nov. (Figs. 7, 13, 14, 21)

Length of forewing 6—8 mm. Head white, mixed with brownish scales. Antenna dark brown basally, paler apically. Palpus rather short; basal segment and outside of median segment snow-white; median segment slightly dilated towards apex; terminal segment shortly exposed, drooping. Thorax pale purplish gray or dark brown. Abdomen grayish brown; anal tuft dark brown, tinged with pale ochreous.

Forewing with a narrow costal fold reaching to before 2/3 of costa in male. Ground color pale grayish brown, shaded with glossy pale purple; costal area including costal fold dark brown. All markings inconspicuous; outer margin of basal patch remaining as a discontinuous line; outer margin of central fascia consisting of a dark brown line, from 2/3 of costa to before tornus. An indistinct ocelloid patch contain a few blackish dashes. Cilia concolorous with wing.

Hindwing pale grayish brown, darker apically; cilia concolorous with wing.

Male genitalia as in fig. 21. Uncus distinct. Socius fairly long, with dense, long hairs. Valva moderate, with a very narrow neck; cucullus large, distinctly prominent ventrally and dorsally. Aedoeagus rather long; cornuti a sheaf of many spines.

Female genitalia as in figs. 13, 14. Sterigma a broad, aciculate plate; ostium opens at about middle of sterigma. Colliculum small, cup-shaped, with a small, sclerite portion at each side. Ductus bursae with large and long sclerite caudally, and with weak sclerite just beyond corpus bursae. Signa two large horns.

Holotype (♂): Onoaida, Yakushima Is., 7 X 1972 (T. Watanabe leg.). Paratypes: Yakushima Is.: Kusakawa, 1♂, 9 VI 1972; Nagata, 1♀, 16 VI 1972; Kurio, 1♀, 11 VII 1972; Aiko-dake, 2♂, 3♀, 5 VII 1972; Shiratani, 1♂, 15 IX 1972 (T. Watanabe leg.).

Distribution. Japan (Yakushima Is.).

Epinotia tamaensis sp. nov. (Figs. 2, 12, 22)

Length of forewing about 7 mm. Head and face ochreous. Antenna ochreous, paler apically. Palpus short, ochreous, mixed with brownish scales, paler interiorly; median segment expanded apically; terminal segment shortly exposed or concealed. Thorax including tegula olive-yellowish ochreous, mixed with dark brownish scales, especially on anterior portion. Abdomen brownish gray; anal tuft paler.

Forewing of male with a narrow brownish black costal fold. Ground color of forewing bicolored, bordered by a distinct purplish silver-grey line from 1/3 of costa to half of dorsum; basal area olive-yellowish orange, in female costa with some very small blackish dots, and an inner margin of border line edged by a narrow blackish line; outer area of wing brownish black, costa with four distinct purplish silver-gray streaks, and the same color patch on above tornus. Cilia shining cinereous, tinged with blackish scales.

Hindwing brownish grey; cilia paler, with an indistinct pale basal line.

Male genitalia as in fig. 22. Uncus narrow, deeply bifurcate. Socius slender, long. Valva narrowing towards top and forming a small excavation at basal third of its low edge. Sacculus with a distinct patch of spines before excavation. Cucullus rather long, slenderly developed. Aedoeagus short, tapering towards top; cornuti a sheaf of many spines.

Female genitalia as in fig. 12. Antrum rather small, shallow cup-shaped, strongly sclerotized at both sides. Ductus bursae with strong sclerite posteriorly. Two strong signa present in corpus bursae.

Holotype (♂) and 1 ♀ paratype: Tama Hill, Tokyo, 22 IV 1958 (A. Kawabe & T. Maenami leg.).

Distribution. Japan (Honshu).

***Zeiraphera shimekii* sp. nov.** (Figs. 1, 11, 23)

Length of forewing about 8 mm. Head and face blackish brown. Antenna pale brownish cinereous, but its base blackish brown. Palpus moderately short, roundly dilated towards apex with slightly projecting scales above and beneath, blackish brown, with a small whitish patch on middle of median segment, white interiorly; terminal segment shortly protruding and drooping. Thorax including a crest, blackish brown, mixed with brownish and whitish scales on middle portion; tegula pale green-gray, blackish brown on anterior portion. Abdomen pale brownish gray; anal tuft paler.

Ground color of forewing bicolored, bordered by a broad and distinct black fascia roundly running from basal 1/4 of costa to apex, the fascia shortly cut off about the middle of it in some specimens; costal area white, tinged with green-gray along costa and apically, with some black dots, and also some pairs of geminated white streaks; the remaining area green-gray, scattered with darkish specks and scales. An indistinct triangular patch on 2/3 of dorsum, edged by silver-gray line. A narrow black line along termen, and a silver-gray line running in almost parallel with the above one. Cilia black anteriorly, white, mixed with a few black dots from below apex to half of termen, grey at posterior half.

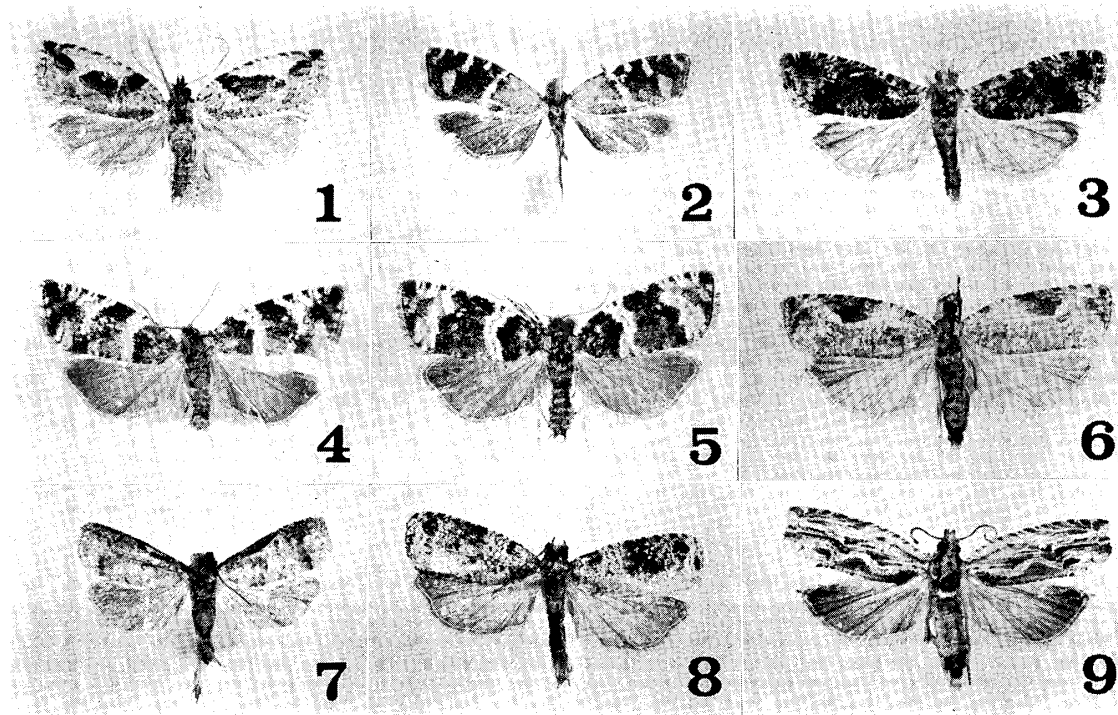
Hindwing shining gray; cilia concolorous, with a narrow whitish basal line.

Male genitalia as in fig. 23. Uncus short. Socius well developed. Valva long and narrow, with strongly sclerotized sacculus basally. Cucullus roundly extending from 2/5 to 4/5 of low edge of valva. Aedocagus rather short; cornuti a sheaf of some spines.

Female genitalia as in fig. 11. Ovipositor retractile. Antrum a cup-shaped, a little broadened in middle. Ductus bursae distinctly sclerotized on its posterior third. Two horned signa present.

Holotype (♂): Yunotaira, Gunma Pref., 26 VII 1968 (A. Kawabe leg.). Paratypes: Lake Syôji, foot of Mt. Fuji, 1♀, 14 VIII 1969 (H. Inoue leg.); Kumanodaira, Gunma Pref., 1♀, 4 VII 1958; Doaiguchi, Gunma Pref., 1♂, 9 VIII 1972 (S. Shimeki leg.).

Distribution. Japan (Honshu).

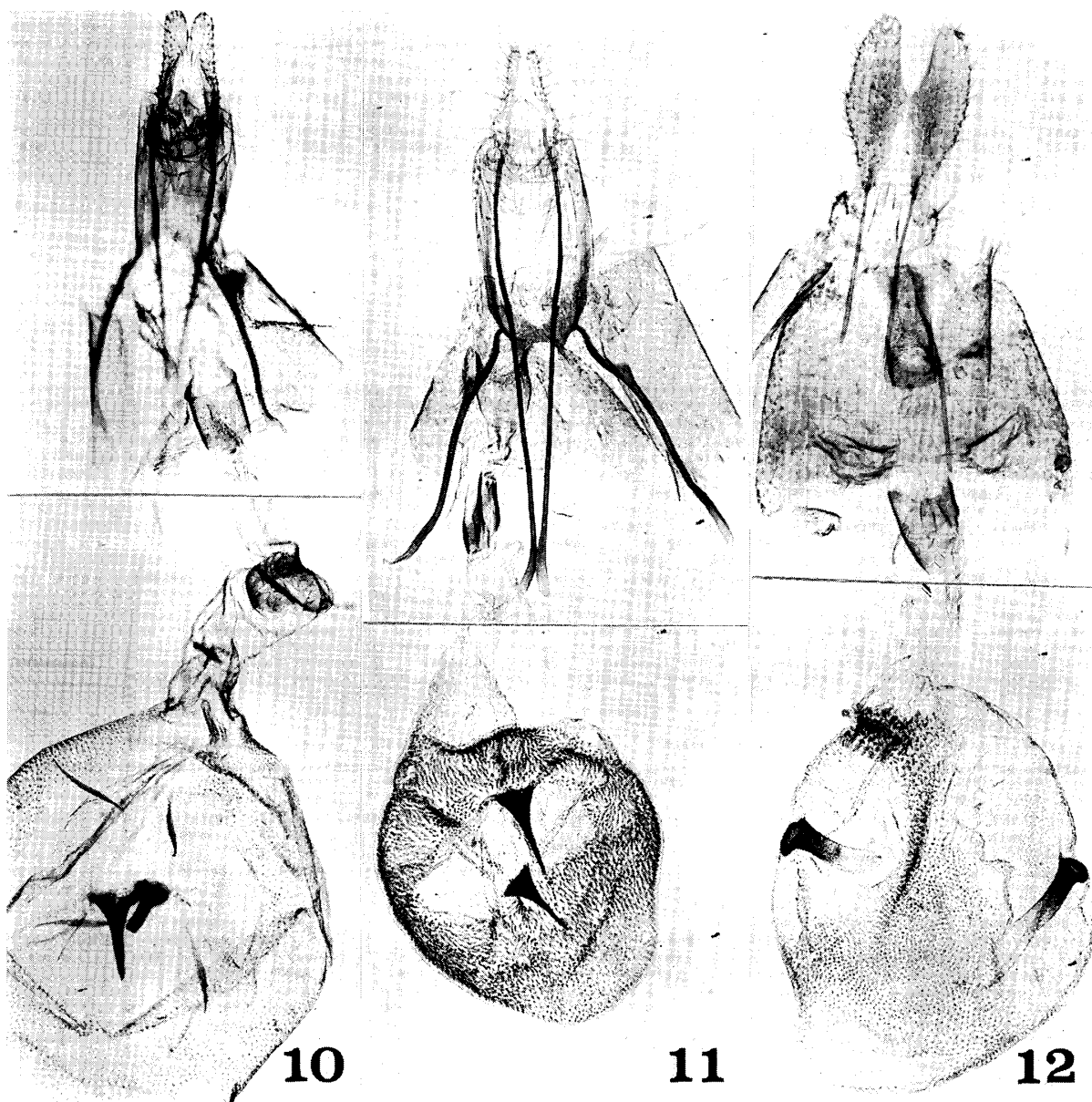


Figs. 1–9. Olethreutinae: (1) *Zeiraphera shimekii* sp. nov., ♂ (holotype); (2) *Epinotia tamaensis* sp. nov., ♀ (paratype); (3) *Zeiraphera fulvomixtana* sp. nov., ♂ (holotype); (4) *Olethreutes bipunctana yama* subsp. nov., ♂ (paratype); (5) *Olethreutes bipunctana bipunctana* (Fabricius), ♀ (from Poland); (6) *Olethreutes maenamii* sp. nov., ♂ (paratype); (7) *Notocelia yakushimensis* sp. nov., ♂ (holotype); (8) *Didrimys tokui* sp. nov., ♂ (paratype); (9) *Hedya gratiana* sp. nov., ♀ (paratype).

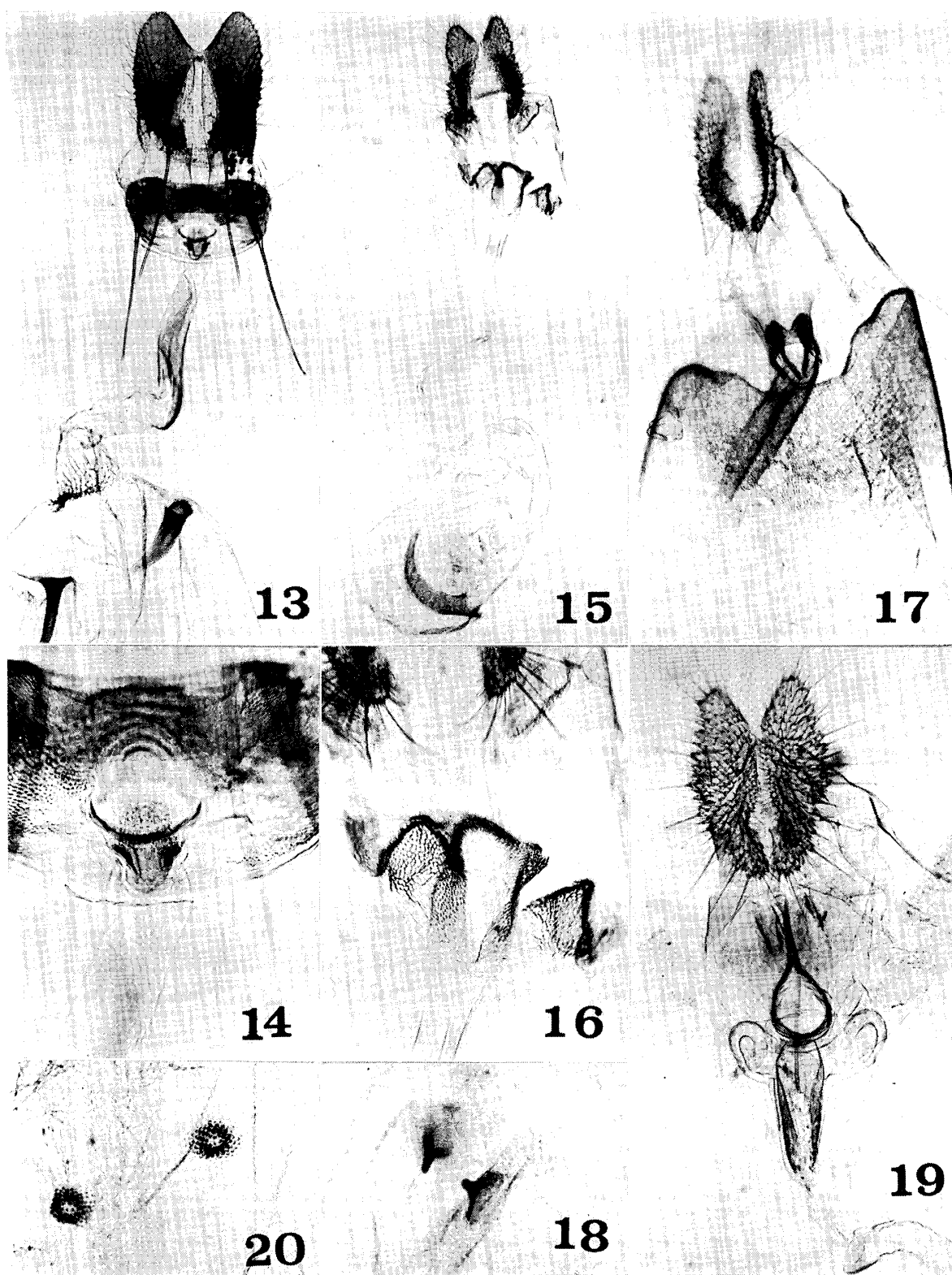
Zeiraphera fulvomixtana sp. nov. (Figs. 3, 10, 24)

Length of forewing 7—9 mm. Head, antenna and palpus pale yellowish brown, tinged with brownish scales. Palpus ascending; median segment dilated towards apex with roughly projecting scales above and beneath. Thorax blackish brown, mixed with pale yellowish brown; tegula dark olive yellow posteriorly, blackish brown anteriorly. Abdomen brownish cinereous; anal tuft greyish ochreous.

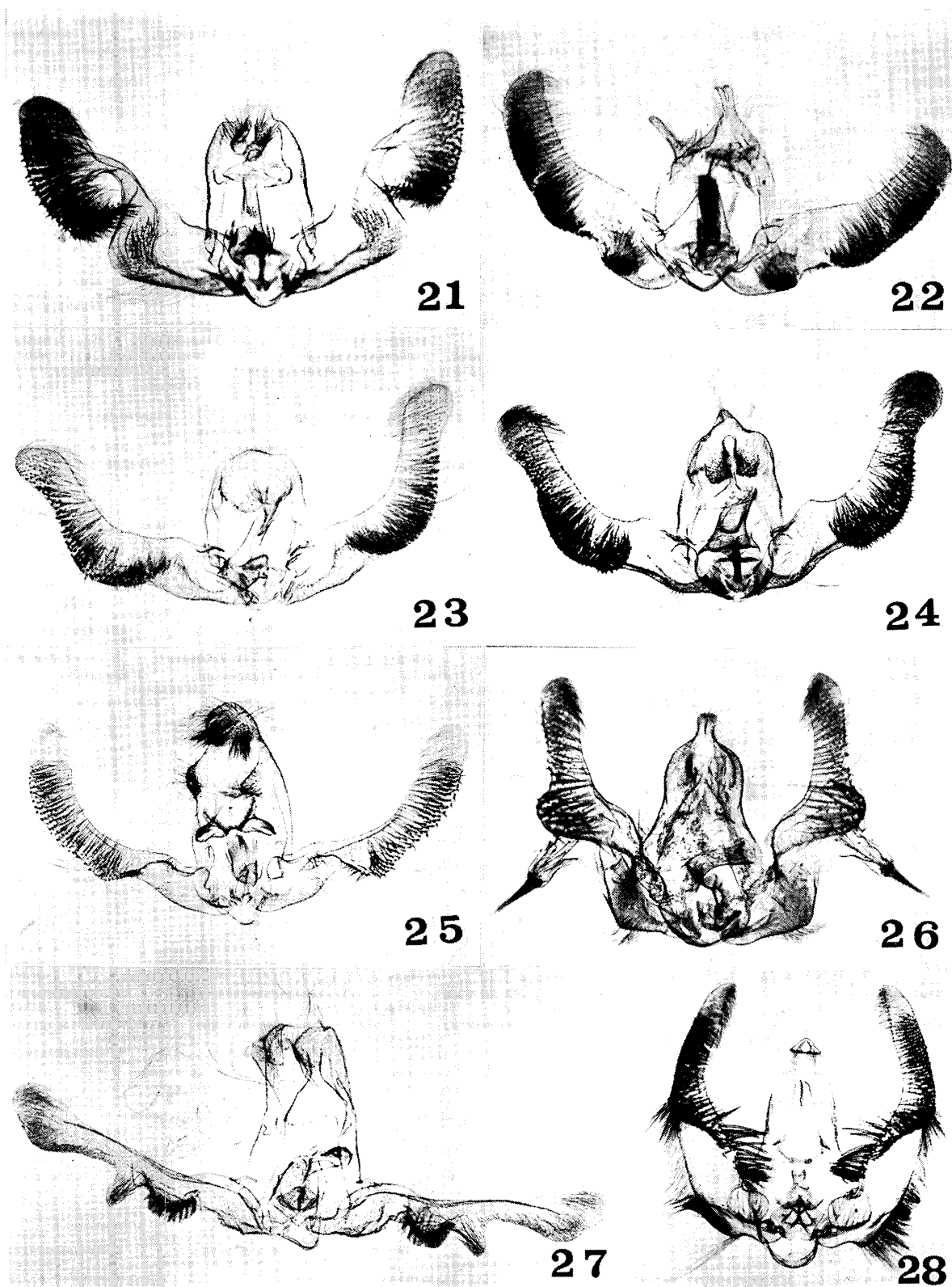
Forewing with a narrow costal fold reaching to before half of costa in male. Ground color dark yellow-green in male, more tinged with yellow-orange in female. All markings inconspicuous, blackish brown; basal patch only remaining at its outer edge, which indistinctly and intermittently running from basal 1/4 of costa to 1/3 of dorsum; an indistinct central fascia from half of costa, continued to a triangular patch at 2/3 of dorsum; a bar between the two fascia, sometimes confluent into them; and a narrow line at preapical area, obsolescent and vanishing in some specimens. Costa with 4 pairs of geminated white streaks. Cilia concolorous with wing, mixed with blackish brown at middle portion, and one or two narrow white streaks at upper half.



Figs. 10–12. Female genitalia of: (10) *Zeiraphera fulvomixtana* sp. nov. (paratype); (11) *Z. shimekii* sp. nov. (paratype); (12) *Epinotia tamaensis* sp. nov. (paratype).



Figs. 13-20. Female genitalia of: (13) *Notocelia yakushimensis* sp. nov. (paratype); (14) ditto, detail of sterigma; (15) *Didrimys tokui* sp. nov. (paratype); (16) ditto, detail of sterigma; (17) *Hedya gratiana* sp. nov. (paratype); (18) ditto, signa; (19) *Olethreutes maenamii* sp. nov. (paratype); (20) ditto, signa.



Figs. 21–28. Male genitalia of: (21) *Notocelia yakushimensis* sp. nov. (paratype); (22) *Epinotia tamaensis* sp. nov. (holotype); (23) *Zeiraphera shimekii* sp. nov. (paratype); (24) *Z. fulvomixtana* sp. nov. (paratype); (25) *Didrimys tokui* sp. nov. (holotype); (26) *Olethreutes bipunctana yama* subsp. nov. (holotype); (27) *Olethreutes maenamii* sp. nov. (paratype); (28) *Hedya gratiana* sp. nov. (paratype).

Hindwing shining yellowish or grayish brown; cilia concolorous with wing, with a narrow pale yellowish basal line.

Male genitalia as in fig. 24. Uncus short, triangularly pointed at top, with long hairs on its reverse side. Socius drooping, curved inwards towards its apex. Valva slenderly curved, narrowed before top. Sacculus narrow, roughly hairy. Cucullus well-developed, roundly prominent. Aedoeagus slender; cornuti a sheaf of many spines.

Female genitalia as in fig. 10. Sterigma cup-shaped. Ductus bursae sclerotized on its posterior half, especially strongly so at middle of it. Signa two large horns.

Holotype (♂): Doaiguchi, Gunma Pref., 12 VII 1972 (S. Shimeki leg.). Paratypes: Takao, Tokyo, 1♀, 16 VII 1949 (H. Inoue leg.); Doaiguchi, Gunma Pref., 1♂, 4 VII 1972; 1♂, 12 VII 1972 (S. Shimeki leg.). Mt. Kirishima, Kagoshima Pref., 1♂, 1♀, 30 VI 1958 (A. Kawabe leg.). Kuromi-dake, Yakushima Is., 1♂, 2♀, 10—12 VII 1972 (T. Watanabe leg.).

Distribution. Japan (Honshu, Kyushu and Yakushima Is.).

Remarks. Extremely closely allied to *Zeiraphera virinea* Falkovitsh, but this is distinguished from it by more brownish ground color of forewing, by the top of uncus not bifurcate, and by the form of cucullus and sclerite of ductus bursae.

***Didrimys tokui* sp. nov.** (Figs. 8, 15, 16, 25)

Length of forewing 5—7 mm. Head yellowish brown, mixed with brownish scales. Antenna yellowish brown; scape dark brown. Palpus short, subporrect, yellowish brown, mottled with dark brown-fuscous at the apical and middle portion of median segment, paler interiorly; terminal segment protruding and drooping. Thorax yellowish brown, mixed with pale purplish fuscous. Abdomen dark brown; anal tuft greyish brown, tinged with pale ochreous.

Ground color of forewing pale gray, tinged with pale red purple, and mottled with darker streaks and dots of diverse size. Costa with 4 pairs of indistinctly geminated white streaks, between them there are some blackish dots. All markings blackish brown; basal patch obsolescent, except for a small, blackish brown patch at basal 1/3 of costa; a large, indistinct costal patch consisting of central fascia and terminal patch from half of costa to before apex, its ventral edge never reaching dorsum; its edge diffused and not distinct, containing a narrow dark fascia along inner edge, and a dark spot in middle portion of it; a preterminal fascia from before apex to 3/4 of dorsum; a small dot at middle of termen. Cilia concolorous with wing.

Hindwing pale grayish brown, slightly tinged with pale red; cilia concolorous with wing, with a paler narrow basal line.

Male genitalia as in fig. 25. Uncus short and broad. Socius rather small. Uncus and socius with dense, long bristles. Gnathos is very characteristic, formed by two transverse, aciculate lobes and with aciculate robust horns. Valva slender, curved, with a slight neck, Spc1, a small group of short spines. Spc2, a row of some spines. Aedoeagus short.

Female genitalia as in figs. 15, 16. Sterigma moderate; ostium opens frontally, caudally and laterally surrounded by an aciculate wall. Colliculum short, weakly sclerotized. Signum, a long, curved horn.

Holotype (♂): Aiko-dake, Yakushima Is., 30 III 1972 (T. Watanabe leg.). Paratypes: Yakushima Is.: Kurio, 1♂, 3 III 1973; 1♂, 29 X 1971; Aiko-dake, 1♂, 1♀, 30 III 1972; Miyanoura, 1♂, 24 X 1971 (T. Watanabe leg.).

Distribution. Japan (Yakushima Is.).

***Hedya gratiana* sp. nov.** (Figs. 9, 17, 18, 28)

Length of forewing 6–8 mm. Head and antenna tawny brown, the former tinged with pale orange in some specimens. Palpus triangularly dilated with projecting scales above, tawny cinereous, mottled with brownish scales at the middle and apical part. Thorax pale yellowish brown, mixed with brownish scales, with a brownish crest. Abdomen glossy pale grayish brown; anal tuft pale yellowish cinereous.

Forewing white or cinereous, thickly and slenderly streaked throughout with rosy and olive tawny. Costa with whitish geminated streaks throughout its length. A narrow blackish brown line running from the end of cell to the middle of termen. A narrow waved whitish band occurring from base of dorsum, ending before ocelloid

patch, which is inconspicuous above tornus. Cilia pale olive tawny, tinged with brownish scales in middle portion.

Hindwing pale yellowish brown, darker apically; cilia pale olive yellow, with a pale yellowish brown basal line and a pale olive yellow subbasal line.

Male genitalia as in fig. 28. Uncus, a long hook, top broadened, bristly below. Socius short, with long hairs. Gnathos a slender band, aciculate at sides and below, in middle occupied by a large tuba analis. Valva slender, with a row of dense, long hairs along low margin of sacculus; cucullus well developed, with a group of strong spines on its basal half. Aedoeagus very short.

Female genitalia as in figs. 17, 18. Sterigma small, aciculate, originally cup-shaped, but with the edge deeply excised in front and in rear. Colliculum narrow and slender. Signa two small horns.

Holotype (♂): Kuchinoerabujima Is., 14 VIII 1973 (reared by A. Kawabe). Paratypes: Kuchinoerabujima Is., 2♂, 27—31 VII 1973 (A. Kawabe leg.); 2♂, 1♀, 14 VIII 1973 (reared by A. Kawabe). Yakushima Is.: Onoaida, 1♀, 14 VI 1972; Nagata, 1♀, 13 VIII 1972 (T. Watanabe leg.).

Distribution. Japan (Yakushima Is. and Kuchinoerabujima Is.).

Food plant. *Glochidion obovatum* Sieb. et Zucc.

***Olethreutes maenamii* sp. nov.** (Figs. 6, 19, 20, 27)

Length of forewing 7.5–8.5 mm. Head, face and thorax pale ochreous, mixed with brownish scales. Palpus moderate, subascending, pale ochreous, darker apically; median segment dilated apically with projecting scales above and beneath, and with brownish dots at middle and basal portion; terminal segment suffused with brownish scales above. Thorax and tegula brown, mixed with pale ochreous scales, the former with a slight posterior crest. Abdomen yellowish brown; anal tuft tinged with pale ochreous-orange.

Ground color of forewing pale ochreous, strewn with small and faint, dark yellowish brown dots of diverse size, especially densely on basi-dorsal area. Costa throughout with dark yellowish brown dots and marks of diverse size, and some pairs of very short indistinct pale streaks. Basal patch indefinite, its edge indicated by a zigzagged darker fuscous streak. Central fascia from before half of costa to before tornus, which cuts off half of its length; anterior half indicated by a dark fuscous suffusion, with a black spot at the end of it (on cell); posterior half rather indefinite, pale fuscous, with two dark branches on outer edge. A large costal patch including anterior half of central fascia from half to 4/5 of costa, fuscous-brown. A narrow oblique fascia towards middle of termen, dark yellowish brown, and very narrow black line along termen. Cilia concolorous with wing, darker apically.

Hindwing glossy yellowish brown, cilia shining cinereous with pale ochreous basal line and a narrow blackish subbasal line.

Male genitalia as in fig. 27. Uncus weakly developed, tapering. Socius moderate, pending, with dense hairs throughout. Gnathos membranous, sclerotized only in middle. Valva sinuate, narrow basally, forming clavate top, with a rounded process, clothed with thorns at middle of low margin, and a distinct patch of strong spines before process. Cucullus sinuate, starting from a process with short, thin bristles. Sacculus narrow, with roughly hairs. Aedoeagus large, with a strongly hooked thorn.

Female genitalia as in figs. 19, 20. Sterigma large, a broad plate. Ostium pear-shaped, strongly encircled by an aciculate and elevated rim, caudal split narrow. Colliculum broad, with a pair of round projections at both sides of base. Signa two, equal, rounded plates.

Holotype (♂): Shikinejima, Izu Is., 16 VI 1966 (T. Maenami leg.). Paratypes: Cape Sata, Kagoshima Pref., 2♀, 3 VII 1958 (A. Kawabe leg.). Kurio, Yakushima, Is., 1♀, 28 III 1971 (R. Sato leg.); 2♀, 12 VI 1972; 1♂, 4 III 1973 (T. Watanabe leg.). Hayama, Kanagawa Pref., 1♀, 22 IV 1962 (H. Matsuura leg.). Izu Is.: Toshima, 1♀, 13 VI 1966; Niijima, 1♂, 1♀, 18 VII 1966; Kozujima, 1♂, 1♀, 21 VI 1966; Miyakejima, 1♂, 1♀, 13 VI 1964; Mikurajima, 2♀, 7 VI 1964; Hachijojima, 3♀, 3 VII 1967; 3♀, 30 V 1968 (T. Maenami leg.).

Distribution : Japan (Honshu, Kyushu, Izu Is. and Yakushima Is.).

***Olethreutes bipunctana yama* subsp. nov.** (Figs. 4, 26)

Celypha expeditana (nec Snellen); Issiki, 1957, Icn. Het. Jap. Cal. Nat., 1: 72, fig. 353; Kawabe, 1970, Jap. Heteroc. Journ., 62: 25, fig. 14 (as *Argyroplote*).

Differs from *Olethreutes bipunctana bipunctana* (Fabricius) from Europe in the following points:

	<i>yama</i>	<i>bipunctana</i>
Central fascia	narrower, costa with three distinct blackish brown specks from midway to before apex.	broadened, including one speck of costa, therefore costa with two specks.
Termina fascia	on vien 7 connected with a narrow fascia separating from central fascia.	simple, not connected with central fascia.
A projection of valva	longer and narrower.	shorter and broader.
Cornuti	two short spines.	some short spines.

Female: unknown.

Holotype (♂): Mt. Daisetsu, Hokkaido, 23 VII 1959 (M. Suzuki leg.). Paratypes: 1♂, data as the above type. Mt. Daisetsu, 1♂, 22 VII 1952 (A. Mutuura leg.).

Distribution: Japan (Hokkaido).

The species, erroneously illustrated by Issiki (1957) as *expeditana*, is identical with *bipunctana yama* in the external structure and anatomical feature. This species lives in high altitude of Hokkaido.

The types designated here are all deposited in my collection.

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摘 要

Notocelia yakushimenesis sp. nov. ヤクシマヒメマキ (新称)

前翅はうすい紫色を加味した淡灰褐色で、斑紋はむしろ不明瞭である。Valva や sterigma の形状に特徴がある。屋久島には広く分布するようで、6月から10月にかけてとれている。

Epinotia tamaensis sp. nov. タマヒメハマキ (新称)

小型で特徴のある表徴を有するので、識別は容易である。多摩丘陵で採集した雌雄の2個体にもとづき記載した。

Zeiraphera shimekii sp. nov. マエジロミドリモンヒメハマキ (新称)

前縁に大きな白色紋を有し、緑色をおびた美しい蛾であり、識別は容易である。群馬県湯ノ平、熊ノ平、土合口、山梨県精進湖(富士山麓)。

Zeiraphera fulvomixtana sp. nov. ニセミドリヒメハマキ (新称)

一見、ミドリヒメハマキ *Zeiraphera virinea* Falkovitsh に似るが、より褐色を加味し、全体に緑色が弱いことや、交尾器の形態から区別出来る。群馬県土合口、東京都下高尾山、鹿児島県霧島山、屋久島からの標本で記載した。

Didrimys takui sp. nov. アカマダラヒメハマキ (新称)

前翅は灰色で、紫赤色の小点や細線を散在する。前縁にはややぼけた大きな黒褐色紋を有する。Gnathos の形状は特徴的である。屋久島では3月と10月に採集されている。

Hedya gratiana sp. nov. カンコノスジヒメハマキ (新称)

一見、アシプトヒメハマキ *Phaecedophora fimbriata* Walsingham に似ているが、全体に色彩はより淡い、また、雄の後脚脛節が太くならないことや、後翅後縁に長毛を欠くことでも異なる。口之永良部島ではカンコノキの葉をつづる幼虫を採集した。屋久島にも分布する。

Olethreutes maenamii sp. nov. チャモンヒメハマキ (新称)

前翅は淡い黄土色で、前縁に大きな褐色紋を有し、紋の先端(中室上)に黒色点がある。本州では神奈川県葉山から1個体が得られているだけで、伊豆七島、屋久島から多数採集されたが、特に伊豆七島ではかなり普通に得られている。たぶん、本州、四国、九州の太平洋岸にそっても発見の期待できる種である。

Olethreutes bipunctana yama subsp. nov. シロマダラヒメハマキ

本種は保育社の図鑑(1957, no. 353)で *Celypha expeditana* として図説された種であるので、和名はそのまま用いた。ヨーロッパ産の *bipunctana* とは中帯、cornuti の数などに差異が認められるので、本邦産の個体を新しく亜種として扱った。北海道の大雪山からのみ得られている。